

Comments of the Massachusetts Department of Public Utilities on Project 2010-17 Phase 2 - Definition of BES

Filed February 3, 2012

Please **DO NOT** use this form for submitting comments. Please use the [electronic form](#) to submit comments on the SAR. The electronic comment form must be completed by **February 3, 2012**.

If you have questions please contact Ed Dobrowolski at ed.dobrowolski@nerc.net or by telephone at 1.609.947.3673.

[2010-17 Definition of BES project page](#)

Background Information

This posting is for soliciting comment.

This SAR is a direct result of the industry comment periods for Project 2010-17 Definition of BES Phase 1 where the industry indicated a need for further detailed examination of the technical concepts underlying the BES definition. Due to time constraints in Phase 1 brought about by the FERC Orders driving the revised definition, any expansion of the scope of Phase 1 was deferred to Phase 2 where time deadlines would be less of an issue. The language of the SAR is such that any and all aspects of the Phase 1 definition are open to discussion and possible revision. However, the SDT outlined some of the major points that were brought up in Phase 1 by bulleting them in the SAR description. The SDT does not consider this list to be an all exclusive one – it is simply a brief listing of those issues that were identified in Phase 1.

You do not have to answer all questions. Enter all comments in simple text format. Bullets, numbers, and special formatting will not be retained.

Insert a “check” mark in the appropriate boxes by double-clicking the gray areas.

The scope of this project includes:

Collect and analyze information needed to support revisions to the definition of BES developed in Phase 1 of this project to provide a technically justifiable definition that identifies the appropriate electrical components necessary for the reliable operation of the interconnected transmission network. The definition development will include an analysis of the following issues which were identified during the development of Phase 1 of Project 2010-17 Definition of the BES. Clarification of these issues will appropriately define which Elements are necessary for the reliable operation of the interconnected transmission network.

- Develop a technical justification to set the appropriate threshold for Real and Reactive Resources used in the operation of the Bulk Electric System (BES)
- Determine if there is a technical justification to support the assumption that there is a reliability benefit of a contiguous BES
- Determine if there is a technical justification for the equipment which “supports” the reliable operation of the BES but is installed on the distribution system
- Determine if there is a technical justification to support an automatic interrupting device in Exclusions E1 and E3
- Determine if there is a technical justification to support the inclusion of Cranking Paths and Blackstart Resources
- Determine if there is a technical justification for selection of 100 kV as the bright-line voltage level
- Determine if there is a technical justification to support allowing power flow out of the local network under certain conditions and if so, what the maximum allowable flow should be

Provide improved clarity to the following:

- The relationship between the BES definition and the ERO Statement of Compliance Registry Criteria established in FERC Order 693
- The use of the term “non-retail generation”
- The language for Inclusion I4 on dispersed power resources
- The appropriate ‘points of demarcation’ between Transmission, Generation, and Distribution

Phase 2 of the definition development may include other improvements to the definition as deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing a high quality and technically justifiable definition of the Bulk Electric System (BES).

Based on the potential revisions to the definition of the Bulk Electric System (BES) and an analysis of the application of, and the results from, the exception process, the drafting team will review and if

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necessary propose revisions to the 'Technical Principles' associated with the Rules of Procedure Exception Process to ensure consistency in the application of the definition and the exception process.

1. Do you agree with this scope? If not, please explain.

☐ Yes

☒ No

Comments: The Massachusetts Department of Public Utilities ("Mass DPU") appreciates the opportunity to provide comments on Phase 2 of the Bulk Electric System ("BES") definition development. Massachusetts is the largest state by population and load in New England. It comprises approximately 46% of both the region's population and electricity consumption. Generating plants located in Massachusetts represent approximately 41% of New England's capacity and our capitol city, Boston, is the largest load center in the region.

The Mass DPU supports the effort to develop specific technical justifications for the BES definition. The description of the scope provided above states that the continued development of the BES definition in Phase 2 may include improvements to the definition and, later, contemplates potential revisions to the BES. However, to avoid any misunderstanding, the scope should explicitly state that the Phase 2 work is sufficiently broad such that the language developed in Phase 1 remains open and subject to restructuring and revision based on the technical analysis being undertaken. In other words, the scope should clarify that the analysis in Phase 2 is not being undertaken simply to provide technical justifications for the BES language already approved by the NERC Board of Trustees in conjunction with Phase 1.

The Mass DPU continues to believe, as it stated in comments on the 2nd Draft Definition of BES in October, 2011, that reliance on the bright-line threshold absent technical justifications could impose substantial costs on consumers without achieving meaningful reliability benefits. Additionally, we repeat our earlier comment that separating the BES definition into two phases is problematic for both procedural and substantive reasons. This concern is described in greater detail in our earlier comments.

[The following is language from NERC's Comment Form] The SDT has identified several issues that are included in the scope of Phase 2 of the project that are associated with the technical aspects of the definition and require technical justification to drive a revision to the definition. Compelling technical

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justification is an essential component in moving any revision forward that addresses the technical nature of the BES definition. The SDT is seeking to identify existing technical justifications (i.e., completed studies, technical papers, etc.) and requests your assistance to properly identify resources available to the SDT which will facilitate the SDT's work in prioritizing its efforts.

Note: The SDT does not intend to respond to all responses associated with an entity's knowledge of existing technical justification (i.e. analysis methodologies, completed studies, technical papers, etc.). The SDT is collecting potential resources that could assist in the development of compelling technical justification.

2. Do you agree that the SDT should pursue the development of technical justification to set thresholds for Real and Reactive Power Resources used in the reliable operation of the BES different from those presently existing in the BES definition?

☒ Yes

☐ No

Comments: In response to this and other questions below regarding whether a technical justification should be pursued to support inclusions/exclusions and the core BES definition itself, the Mass DPU strongly answers in the affirmative. No proposed reliability standard should move forward absent a technical justification demonstrating that the standard is neither underinclusive (leaving reliability issues unaddressed) nor overinclusive (imposing costs disproportionate to the reliability benefit). A technical justification is particularly critical for the core BES definition and its related inclusions and exclusions given the sweeping changes and resulting costs that the final language could impose. For the same reasons, the Mass DPU urges the SDT to develop a sound technical justification to support setting thresholds for including real and reactive power resources in the BES.

- a. Are you aware of existing technical justification (i.e., analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the 'Comments' field.

☐ Yes

☒ No

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3. Do you agree that the SDT should pursue technical justification that supports the assumption that there is a reliability benefit of a contiguous BES?

☐ Yes

☒ No

Comments: As stated in our response to question 2, the Mass DPU believes the definition and scope of the BES should be supported by technical justifications. However, we check “no” above because the question itself provides a conclusion about the reliability of a contiguous BES that precedes the data to support it. The words “supports the assumption” and “benefit” bias the issue of whether the BES should be contiguous or not. The statement should simply read: “Do you agree that the SDT should determine if there is a technical justification for a contiguous BES?”

The inclusion of facilities under an assumption made without appropriate support that there is a reliability benefit to a contiguous BES creates significant risk of imposing excessive costs on ratepayers. We noted in our comments on the 2nd Draft Definition of BES that the Federal Energy Regulatory Commission’s (the “Commission”) Order 743 bounded NERC’s development of the BES definition by two criteria: (1) the statutory exclusion of facilities used in local distribution, and (2) the requirement that the facilities included be necessary for reliable operation of an interconnected transmission system. *Revision to Electric Reliability Organization Definition of Bulk Electric System*, Order No. 743A, 134 FERC ¶ 61,210 (Mar. 17, 2011) at PP 8. 20, citing to *Revision to Electric Reliability Organization Definition of Bulk Electric System*, Order No. 743, 133 FERC ¶ 61,150 (2010). These limitations help to ensure that costs are not imposed absent attendant meaningful reliability benefits. The imperative to identify such benefits drives the need for technical justifications.

- a. Are you aware of existing technical justification (i.e., analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the ‘Comments’ field.

☐ Yes

☒ No

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4. Do you agree that the SDT should pursue technical justification for including in the BES definition the equipment which “supports” the reliable operation of the BES?

☐ Yes

☒ No

Comments: As stated in the previous response, Order 743 requires that the facilities included in the BES definition should be necessary for reliable operation of an interconnected transmission system. However, it is not clear how the STD would distinguish a “supporting” from a “necessary” element. The Mass DPU does not believe the BES should include a subcategory of facilities that only “support” reliable operation and do not meet the definition as “necessary.” Expanding the BES reliability requirements to such a subcategory would impose significant and unjustified costs on consumers.

- a. Are you aware of existing technical justification (i.e. analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the ‘Comments’ field.

☐ Yes

☒ No

Comments:

5. Do you agree that the SDT should pursue technical justification to support including an automatic interrupting device in Exclusions E1 and E3?

☒ Yes

☐ No

Comments: See general comments in number 2 above.

- a. Are you aware of existing technical justification (i.e., analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the ‘Comments’ field.

☐ Yes

☒ No

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6. Do you agree that the SDT should pursue technical justification to support the inclusion of Cranking Paths in the BES definition and to retain Blackstart Resources as part of the BES definition?

☒ Yes

☐ No

Comments: See general comments in number 2 above. Additionally, similar to our response to number 3 above, the question's use of the word "support" should be replaced by a neutral term such as "determine."

- a. Are you aware of existing technical justification (i.e., analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the 'Comments' field.

☐ Yes

☒ No

Comments:

7. Do you agree that the SDT should pursue technical justification for selection of 100 kV as the bright-line voltage level?

☒ Yes

☐ No

Comments: See general comments in number 2 above.

The development of a technical justification for the selection of 100 kV as an "across the board" bright-line voltage level, which the drafting process has so far failed to provide, is essential. We stated in our previous comments that Order 743 provided a 100 kV bright-line threshold as "initial line of demarcation" to be refined through exclusions and exemptions, with flexibility for NERC to propose an alternative proposal. See Order 743A at PP 8, 40. Accordingly, unless and until NERC provides a technical justification for its approach, the standard should use the 100 kV threshold concept in a way that is consistent with the Commission's guidance.

- a. Are you aware of existing technical justification (i.e. analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the 'Comments' field.

☐ Yes

☒ No

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8. Do you agree that the SDT should pursue technical justification to support allowing power flow out of the local network under certain conditions and if so, what the maximum allowable flow should be?

☒ Yes

☐ No

Comments: See general comments in number 2 above.

- a. Are you aware of existing technical justification (i.e., analysis methodologies, completed studies, technical papers, etc.) that would assist the SDT in the development of technical justification for this issue? If so, please provide details in the 'Comments' field.

☐ Yes

☒ No

Comments:

9. Do you have any other issues that require technical justification that you feel need to be added to the SAR? If so, please provide a detailed explanation of the issue and why it should be included.

☐ Yes

☒ No

Comments:

10. Do you have any other issues that are associated with improving the clarity of the definition created in Phase 1 that will assist the Registered Entity in the identification of BES Elements without altering the intent or scope of the definition? If so, please provide a detailed explanation of the issue and why it should be included.

☒ Yes

☐ No

Comments: This question is unclear. The Mass DPU expects that the STD's efforts to clarify definitions by seeking technical justifications will necessarily lead to revisions to some of those terms, including the base BES definition itself. For this reason, the Mass DPU repeats its response to question 1 that to avoid any misunderstanding, the scope should explicitly state the Phase 2 work is sufficiently broad such that the language developed in Phase 1 remains open and subject to restructuring and revision based on the technical analysis being undertaken. In other words, the scope should clarify that the analysis in Phase 2 is not being

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undertaken simply to provide technical justifications for the BES language already approved by the NERC Board of Trustees in conjunction with Phase 1.

11. Are you aware of any regional variances associated with approved NERC Reliability Standards that will be needed as a result of this project? If yes, please identify the Regional Variance.

☐ Yes

☒ No

Comments: This question is unclear. Following clarification of the issue, the Mass DPU may provide comments at a future time on regional variances required in the New England region.

12. Are you aware of any business practice that will be needed or that will need to be modified as a result of this project? If yes, please identify the business practice:

☐ Yes

☒ No

Comments: Again, we are unclear regarding the information this question seeks to elicit. As a general matter, the extent to which modifications of business practices will be needed depends on the BES definition that is ultimately implemented, which requires Commission approval. Additionally, as we state in our response to question 1, we understand the scope of Phase 2 to include consideration of any needed revision or restructuring of the definition following the technical analysis being undertaken. In short, a response to this question (as we understand it) seems premature.

13. If you have any other comments on this SAR that you haven't already mentioned above, please provide them here:

Comments: